

REMARKS**I. General**

The issues outstanding in the instant application are as follows:

- Claim 17 is objected to for informalities;
- Claims 1-3, 5-8, 14, 15, 20, 21, 35-45 and 50-51 stand rejected under 35 U.S.C. §103(a) as unpatentable over McGuire et al., U.S. Pat. No. 4,920,350 (hereinafter, *McGuire*) in view of Anderson, U.S. Pat. No. 5,892,481 (hereinafter, *Anderson*);
- Claims 4, 9, and 10-13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *McGuire* in view of *Anderson*, and further in view of Philips et al. U.S Pat. No. 6,072,994 (hereinafter, *Philips*);
- Claims 16 and 17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *McGuire* in view of *Anderson*, and further in view of Brettle et al., U.S Pat. No. 4,594,472 (hereinafter, *Brettle*);
- Claim 18 stands rejected under 35 U.S.C. 103(a) as being unpatentable over *McGuire* in view of *Anderson*, and further in view of Zingle et al., U.S. Pat. No. 5,596,814 (hereinafter, *Zingle*);
- Claim 19 stands rejected under 35 U.S.C. 103(a) as being unpatentable over *McGuire* in view of *Anderson*, and further in view of Harshberger et al., U.S. Pat. No. 5,311,397 (hereinafter, *Harshberger*);
- Claim 22 stands rejected under 35 U.S.C. 103(a) as being unpatentable over *McGuire* in view of *Anderson*, and further in view of Bae et al., U.S. Pat. No. 6,232,680 (hereinafter, *Bae*);
- Claims 23-26, 28, and 33 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Anderson* in view of *McGuire*;

- Claims 27, and 29-31 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Anderson* in view of *McGuire*, and further in view of *Philips*;
- Claim 32 stands rejected under 35 U.S.C. 103(a) as being unpatentable over *Anderson* in view of *McGuire*, and further in view of *Zingle*;
- Claim 34 stands rejected under 35 U.S.C. 103(a) as being unpatentable over *Anderson* in view of *McGuire*, and further in view of *Harshberger*;
- Claims 46 and 47 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *McGuire* in view of *Anderson* and *Philips*, and further in view of *Brettelle*;
- Claim 48 stands rejected under 35 U.S.C. 103(a) as being unpatentable over *McGuire* in view of *Anderson* and *Philips*, and further in view of *Zingle*;
- Claim 49 stands rejected under 35 U.S.C. 103(a) as being unpatentable over *McGuire* in view of *Anderson* and *Philips*, and further in view of *Harshberger*; and
- Claim 52 stands rejected under 35 U.S.C. 103(a) as being unpatentable over *McGuire* in view of *Anderson* and *Philips*, and further in view of *Bae*.

Applicant hereby traverses the outstanding rejections of the claims, and requests reconsideration and withdrawal of the outstanding rejections in light of the amendments and remarks contained herein. Claims 14, 21, and 51 have been amended to correct informalities discovered during the preparation of the present Amendment. Specifically, a typographical error wherein “lest” appeared in claim 14 rather than the word “least” has been corrected. Likewise, a typographical error wherein “in” appeared in claims 21 and 51 rather than the word “is” has been corrected. These amendments does not alter the scope of the claim and does not introduce new matter. Claims 1-52 are currently pending in this application.

II. Claim informalities

The Office Action objects to claim 17 because “said gasket” is not defined in the parent claims. In response, Applicant has amended a typographical error in claim 17 by amending claim 17 to depend from claim 16.

III. Rejections under 35 U.S.C. §103(a)

As noted above, claims 1-3, 5-8, 14, 15, 20, 21, 35-45 and 50-51 stand rejected under 35 U.S.C. §103(a) as unpatentable over *McGuire* in view of *Anderson*. Claims 4, 9, and 10-13 stand rejected as being unpatentable over *McGuire* in view of *Anderson*, and further in view of *Philips*. Claims 16 and 17 stand rejected as being unpatentable over *McGuire* in view of *Anderson*, and further in view of *Brettelle*. Claim 18 stands rejected as being unpatentable over *McGuire* in view of *Anderson*, and further in view of *Zingle*. Claim 19 stands rejected as being unpatentable over *McGuire* in view of *Anderson*, and further in view of *Harshberger*. Claim 22 stands rejected as being unpatentable over *McGuire* in view of *Anderson*, and further in view of *Bae*. Claims 23-26, 28, and 33 stand rejected as being unpatentable over *Anderson* in view of *McGuire*. Claims 27, and 29-31 stand rejected as being unpatentable over *Anderson* in view of *McGuire*, and further in view of *Philips*. Claim 32 stands rejected as being unpatentable over *Anderson* in view of *McGuire*, and further in view of *Zingle*. Claim 34 stands rejected as being unpatentable over *Anderson* in view of *McGuire*, and further in view of *Harshberger*. Claims 46 and 47 stand rejected as being unpatentable over *McGuire* in view of *Anderson* and *Philips*, and further in view of *Brettelle*. Claim 48 stands rejected as being unpatentable over *McGuire* in view of *Anderson* and *Philips*, and further in view of *Zingle*. Claim 49 stands rejected as being unpatentable over *McGuire* in view of *Anderson* and *Philips*, and further in view of *Harshberger*. Finally, claim 52 stands rejected as being unpatentable over *McGuire* in view of *Anderson* and *Philips*, and further in view of *Bae*. In light of the amendments and comments presented herein, Applicant respectfully traverses these rejections.

A Prima Facie case of obviousness has not been established.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to

combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. See M.P.E.P. §2143. Without conceding the second criterion, Applicant respectfully asserts that the rejection does not satisfy the first and third criteria.

A. **Claims 1-22 and 35-52**

1. **The recited combination does not teach or suggest all limitations.**

In addressing claims 1-3, 5-8, 14, 15, 20 and 21 the Office Action admits “*McGuire* fails to clearly teach the features of said housing having an open side and comprising a heat sink at least one emissions shielding enclosure secured within said housing; an RF communications board mounted in said at least one enclosure; an antenna array mounted to a first side of said at least one enclosure, said array operatively connected to said communications board through said at least one shielding enclosure for communicating RF data signals; and a radome secured over a face of said antenna array, sealed to said housing.” Similarly in addressing claims 35-45, 50 and 51 the Office Action admits that “*McGuire* fails to teach the features of the housing having an open side and comprising a heat sink; a plurality of emission shielding enclosures secured within said housing ; and an antenna array mounted to a first side of one of said enclosures, said array operatively connected to said RF receiver and said RF transmitter through said enclosures to communicate RF data signals on at least one of a plurality of antenna beams produced by said array.” In each case, the Office Action attempts to cure this deficiency by introducing *Anderson*, which the Office Action alleges to teach these numerous features. However, as discussed below, this combination, as presented, does not teach or suggest all limitations of the claimed invention.

Independent claim 1 recites “a spindle extending upwardly from said subscriber station” and “a housing rotatably mounted to said spindle.” Similarly independent claim 35 recites “a fixed, overhead secured spindle” and “a housing controllably rotatably mounted to said spindle.” The Office Action indicates that these elements are shown by mast 18 in Figure 6 of *McGuire* and described in column 5, lines 29 and 30. Applicant respectfully contends that the mast of *McGuire* extends downward from its housing. Furthermore, *McGuire* states that the housing needs to be mounted at the highest point on the ship. Col. 1, lines 59-60. If the housing was “rotatably mounted” to “a spindle extending upwardly from said subscriber

station,” as recited by claim 1, or “mounted to” “a fixed, overhead secured spindle,” as recited by claim 35, the housing could not be at the highest point on the ship. Further, Applicant respectfully contends that whereas *McGuire* indicates that the housing should be mounted at the highest point on the ship, *McGuire* arguably teaches away from a spindle extending upwardly from said subscriber station and a housing mounted to the spindle, or a housing mounted to a fixed, overhead secured, spindle. As a result, Applicant respectfully asserts independent claims 1 and 35 are patentable over the 35 U.S.C. § 103 rejection of record.

Claims 2-3, 5-8, 14-15, 20 and 21 ultimately depend from independent claim 1, and claims 36-45, 50 and 51 ultimately depend from independent claim 35. Thus, each of claims 2-3, 5-8, 14-15, 20, 21 36-45, 50 and 51 inherits all limitations of respective independent claims 1 or 35. Therefore, for at least the reasons advanced above in addressing the rejections of claims 1 and 35, each of claims 2-3, 5-8, 14-15, 20, 21 36-45, 50 and 51 sets forth features and limitations not recited by the combination of *McGuire* and *Anderson*. Thus, Applicant respectfully asserts that for the above reasons claims 2-3, 5-8, 14-15, 20, 21 36-45, 50 and 51 are also patentable over the 35 U.S.C. § 103(a) rejections of record.

Furthermore, many of the dependent claims contain limitations not taught or suggested by the combination of *McGuire* and *Anderson*. For example, claim 14 recites, “at least one emission shielding enclosure dissipates heat,” yet *Anderson* teaches the flanges dissipate heat rather than the emission shielding enclosure. Likewise, figures 1 and 3 in *Anderson* show the edge where the flanges are located is open to air flow and does not form an enclosure.

As a further example, claims 20 and 50 recite, “said spindle is secured to a fixed overhead bracket.” On the other hand, *McGuire* discloses a spindle attached to the base of a housing unit and does not disclose an overhead bracket.

In yet another example, claims 21 and 51 recite, “said subscriber station is generally cylindrical and said overhead bracket covers a top of said subscriber station...” However, *McGuire* teaches a domed shaped enclosure and fails to disclose a bracket cover. Figure 5.

As noted above, various ones of claims 4, 9-13, 21 and 22 are rejected by combinations of references based on the combination of *McGuire* and *Anderson*. In addressing claims 35-45, 50 and 51, the Office Action admits that *McGuire* and *Anderson* fails to teach various other elements of the claims. The Office Action attempts to cure this further deficiency by introducing *Philips*, which the Office Action alleges to teach having such elements. Various ones of claims 46-49 and 52 are rejected by combinations of references based on this combination of *McGuire*, *Anderson* and *Philips*. Whereas claims 4, 9-13, 21, 22 depend directly or indirectly from claim 1 and claims 36-52 depend directly or indirectly from independent claim 35, each of claims 4, 9-13, 21, 22 and 36-52 contain the limitations of respective independent claims 1 and 35. Applicant has shown above that *McGuire* in view of *Anderson* does not teach or suggest the limitations of independent claims 1 and 35. The rejections of record with respect to dependent claims 4, 9-13, 21, 22 and 36-52 do not rely upon the other cited references as teaching the elements shown above as missing from the combination of *McGuire* and *Anderson*. Therefore, claims 4, 9-13, 21, 22 and 36-52 are asserted to be patentable over the 35 U.S.C. § 103 rejections of the record at least for the reasons set forth above with respect to independent claims 1 and 35.

2. The Office Action does not provide the requisite motivation.

The Office Action admits that *McGuire* does not teach numerous elements of claims 1-3, 5-8, 14-15, 20, 21, 35-45, 50 and 51. The Office Action attempts to cure this deficiency by introducing *Anderson*, which the Office Action alleges to teach having such elements. The motivation for making the combination was presented as follows:

“it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the features of... as taught by *Anderson*, in view of *McGuire*, in order to conveniently provide a well protected communication unit for working in extreme conditions.”

In addressing claims 35-45, 50 and 51, the Office Action admits that *McGuire* and *Anderson* fails to teach various other elements of the claims. The Office Action attempts to cure this further deficiency by introducing *Philips*, which the Office Action alleges to teach having such elements. The motivation for adding *Philips* to the combination of *McGuire* and *Anderson* was presented as follows:

"it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the feature of... as taught by Philips, into view of *McGuire* and Anderson, in order to facilitate the processes of transmitting are receiving RF signals.

It is well settled that prior art must suggest desirability of the claimed invention, M.P.E.P. § 2143.01. Applicant respectfully contends that the motivation language provided by the Office Action is insufficient and misleading. First, the Office Action states: "the use of" various features "as taught by Anderson, into view of *McGuire*." Applicant respectfully points out that the Office Action admits that *McGuire* fails to teach these limitations so Applicant fails to understand how these features can be "taught by Anderson, into view of *McGuire*." Similarly, the Office Action states: "the use of" various feature "as taught by Philips, into view of *McGuire* and Anderson." Again, Applicant respectfully points out that the Office Action admits that *McGuire* and *Anderson* fails to teach these features so Applicant fails to understand how these features can be "taught by Philips, into view of *McGuire* and Anderson." Regardless, adding "at least one emissions shielding enclosure secured within said housing" to the invention disclosed in *McGuire* does not make the improvement suggested by the Office Action. See claim 1. *McGuire* discloses no electronics inside the enclosure that would benefit from emissions shielding, thus including the feature would not improve the protection of the communications unit in *McGuire* or improve its ability to operate under extreme conditions. Therefore, Applicant respectfully contends that the provided motivations are misleading and therefore nothing more than a statement that the references can be combined, without providing the desirability for making the combination.

Second, Applicant respectfully contends that the statement "in order to conveniently provide a well protected communication unit for working in extreme conditions" is tantamount to a mere statement that the references, *McGuire* and *Anderson*, can be combined and states no substantive desirability for combining the references. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ.2d 1430 (Fed. Cir. 1990), as cited in M.P.E.P. §2143.01. Thus, the motivation provided by the Office Action is improper, as the motivation must establish the desirability for making the modification.

As noted above, claim 1 recites, “at least one emissions shielding enclosure secured within said housing.” However, *McGuire* discloses no desire or need to include an emissions shielding enclosure within the dish’s housing. Nothing in *McGuire*’s specification discloses the electronics in the housing would need protection from emissions thereby giving no motivation to include such an enclosure. Furthermore, Examiner admits *McGuire* does not teach an “RF communications board” located inside the housing. Office Action page 3. Rather, it seems the communications equipment is located within the ship’s onboard electronics and is coupled to the dish via a cable feed 20. Col. 7, lines 5-21 and col. 4, lines 27-29. Because the communications equipment is already located in the ship’s onboard electronic equipment, there would be no motivation to duplicate the electronics and include them in the housing, particularly in that the separation of the communications equipment from the antenna in *McGuire* obviates any need for shielding or heat dissipation.

Using an emissions shielding enclosure to separate the dish from the electronics located in the housing renders the preferred embodiment of *McGuire* inoperable. In *McGuire*, the diplexer electronics are mounted on the back of the dish. “Consequently, the diplexer also acts as a counterweight for the motor allowing static balancing without the need of additional weights.” Col 6, lines 23-25. *McGuire* explains the reduction in weight is important because the housing can now be fitted to smaller vessels such as fishing boats and yachts as well as be installed without using a crane or helicopter. Col. 6, lines 42-49. However, if an emissions shielding enclosure were used to separate the diplexer from the dish, the diplexer would no longer be attached to the dish thereby removing one of its key functions as a counterweight. Furthermore, if the diplexer does not serve as a counterweight, another weight will need to be incorporated into the housing to act as a counterweight thereby increasing the weight and complexity of the housing which destroys *McGuire*’s preferred embodiment.

Finally, Applicant respectfully contends that *McGuire* teaches away from combining the emission shielding enclosure of *Anderson* with the housing of *McGuire*. Adding an emissions shielding enclosure large enough to separate the dish from any electronics would add significant weight and complexity to the housing. Col. 3, lines 20-22. Because *McGuire* discloses a design with the goal of reducing weight and complexity, he teaches away from the combination suggested by Examiner. Col. 5, lines 61-62.

As result of the foregoing, Applicant respectfully asserts it would not have been obvious to one skilled in the art at the time the invention was made to combine *McGuire* and *Anderson* in order to cure *McGuire*'s deficiencies regarding claims 1-22 and 35-52. For at least the foregoing reasons Applicant respectfully contends that the motivation provided by the Office Action is improper, as the motivation must establish the desirability for making the combination. No valid suggestion has been made, absent the application of impermissible hindsight, as to why a combination of *McGuire* and *Anderson* is desirable. Therefore, the rejection of claims 1-22 and 35-52 should be withdrawn.

B. Claims 23-34

1. The recited combination does not teach or suggest all limitations.

In addressing claims 23-26, 28, and 33 the Office Action admits that "Anderson fails to teach the features of means for housing said enclosing means and said antenna beam forming means mounted thereto, said housing means comprising means for covering said antenna beams means, while allowing communication on said antenna beams; and means for controllably rotatably mounting said housing means." The Office Action attempts to cure this deficiency by introducing *McGuire*, which the Office Action alleges to teach having such limitations. However, this combination, as presented, does not teach or suggest all limitations of the invention, as claimed by claims 23-34, as amended.

Claim 23 have been amended above to include the limitation "means for aiming said antenna beam to compensate for interference." Paragraph [0029] of the present application provides support for this limitation. Therefore, Applicant asserts that claim 23 , as amended, is enabled in accordance with 35 U.S.C. § 112 and no new matter has been added.

Anderson and *McGuire* are silent concerning aiming an antenna beam to compensate for interference. In *McGuire*, the dish is located at the highest point on the ship (col. 1, lines 59-60) to avoid "reflections from the ship and sea surface," "signal path[s] blocked by parts of the ship," or the like (col. 1, lines 65-68). Therefore, Applicant respectfully asserts that independent claim 23 is patentable over the 35 U.S.C. § 103(a) rejection of record.

Claims 24-26, 28, and 33 depend directly or indirectly from claim 23 and thereby contain the limitations therein. Therefore, at least for the reasons shown above, Applicant

contends dependent claims 24-26, 28, and 33 are not taught or suggested by *Anderson* in view of *McGuire*.

As noted above various ones of claims 27, 29-32 and 34 are rejected by combinations of references based on the combination of *Anderson* and *McGuire*. Whereas claims 27, 29-32 and 34 depend directly or indirectly from claim 23, each of claims 27, 29-32 and 34 contain the limitations of independent claim 23. Applicant has shown above that *Anderson* in view of *McGuire* does not teach or suggest the limitations of independent claim 23, as amended. The rejections of record with respect to claims 27, 29-32 and 34 do not rely upon the other cited references as teaching the elements shown above as missing from the combination of *McGuire* and *Anderson*. Therefore, Applicant respectfully contends that claims 27, 29-32 and 34 are also patentable over the 35 U.S.C. § 103 rejections of record at least for the reasons set forth above with respect to independent claim 23.

2. The Office Action does not provide the requisite motivation.

As noted above, the Office Action, in addressing independent claim 23, admits that *Anderson* does not teach various elements. The Office Action attempts to cure this deficiency by introducing *McGuire*, which the Office Action alleges to teach the missing elements. The motivation for making the combination was presented as follows:

“it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the features as taught by McGuire, in view of Anderson, in order to keep the antenna maintaining the lock-on with a base station.

Applicant respectfully reiterates its objections to the provided motivation advanced above with respect to combining *McGuire* and *Anderson* to reach claims 1-22 and 35-52. Further, as to the motivation provided to reach claims 23-34, the Office Action asserts it would have been obvious to one of ordinary skill in the art to incorporate the “means for controllable rotatably mounting said housing means...in order to keep the antenna maintaining the lock-on with a base station.” Office Action page 12. However, *Andersson* does not suggest a desire to rotate the housing for any reason. Furthermore, the combination of *Andersson* and *McGuire* results in a housing mounted on the highest point on a ship thereby eliminating interference from the ship and its surroundings. Col. 1, lines 59-68.

Therefore, because the location of the housing of *McGuire* addresses “reflections from the ship and sea surface,” “signal path[s] blocked by parts of the ship,” or the like, there would be no motivation for “aiming said antenna beam to compensate for interference,” as stated in claim 23, as amended. As the motivation must establish the desirability for making the modification, the motivation provided by the Office Action is insufficient to reach independent claim 23, at least as amended. No valid suggestion has been made as to why a combination of *Anderson* and *McGuire* is desirable, with respect to independent claim 23, as amended. Therefore, the rejection of claims 23-34 should also be withdrawn.

IV. Conclusion

For at least the reasons given above, Applicant submits that the pending claims distinguish over the prior art under 35 U.S.C. § 103. Accordingly, Applicant submits that this application is in full condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 06-2380, under Order No. 60783/P010US/10104632 from which the undersigned is authorized to draw.

Applicant respectfully requests that the Examiner call the below listed attorney if the Examiner believes that the attorney can helpful in resolving any remaining issues or can otherwise be helpful in expediting prosecution of the present application.

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Respectfully submitted,

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